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ELECTRONICS, INC. INVENTION DISCLOSURE FORM

97.03994

MICRON LEGAL

DEC 10 1997

1. INVENTOR (S)

Eric Anderson

2. DESCRIPTION

2.1 Title of invention:

Method of conserving storage space on electronic messaging systems.

2.2 Brief description:

I believe present implementations of email systems store multiple copies of messages that are addressed to more than one recipient. A significant savings in storage space could be realized by storing only one copy of such messages, and retrieving said messages for the intended recipients when the addressee accesses the message.

2.3 Also attach a complete description, including drawings or sketches and articles relevant to the invention. Legible photocopies of laboratory notebooks are acceptable.

See attached photo copies from my notebook.

JDW
no obvious
bar dates

An example of how this idea could be implemented:

An email server receives a message that needs to be stored until the addressee(s) access it.

The email program parses the message and determines that there are multiple recipients addressed that are clients of this server. The message could be stored with a header attached that contains the usernames of each recipient that is a user for this server. The header would be made of a structure containing fields for the username and status fields indicating whether the individual recipients have read the message, and if the recipient wants the message saved on the server. Once all of the recipients have accessed the message, and none of them want the message saved, the message can be deleted.

< or w/ security
messages
to a file

Each recipient's individual mailbox would have a short entry indicating that there is a message to be read. This entry could be made of a structure containing a pointer, or address of the message for quick retrieval, a copy of the email subject contents, and any other status type information that the user may want to be able to view without retrieving the message, such as level of importance, size of the message, time sent, etc.

3. INFORMATION CONCERNING CONCEPTION OF INVENTION

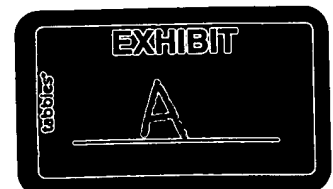
3.1 CONCEPTION AND DOCUMENTATION OF THE INVENTION

a. Identify the date when you first conceived the invention. (If not sure, give the earliest date of which you are sure.)

[REDACTED]

b. To whom was the idea first described and on what date? (Other than a co-inventor.)

Eric Anderson described the idea to Jeff Leyda.



- c. Identify the date of the first tangible record such as computer simulation, tape out, drawing or written description. Please specify type and location.

Eric Anderson's Inventor's Notebook #100092, pages 6 and 7, September 9th, 1997.

3.2 CONCEPTION OF THE INVENTION

- a. Please identify related invention disclosures, patents or other publications describing similar ideas, and other companies working in the same field. Attach copies, if available.

No specifically related idea that I am aware of, however [REDACTED]
[REDACTED] a wholly owned subsidiary of
International Business Machines, Inc.) [REDACTED] there are many more.

- b. What is the closest technology, of which you are aware?

[REDACTED] email database programs and store specific data in one location for easy retrieval
program creators.

- c. Identify the advantages of this invention over previous technology.

Storing one complete copy of every email message for every recipient in an organization quickly consumes storage space. In spite of the fact that we continue to have increasing storage capacities made available to us on newer hard disks, we still experience the problem of having these storage systems filled to their capacity. It is fairly common for someone to attach a large document or image file to an email sent to multiple people in an organization. This idea greatly reduces the storage requirement for such cases by keeping only one copy of the large file on the email server.

3.3 IMPORTANT DATES

- a. Has the invention been disclosed outside the company? No
If yes, to whom, when, and in what form?
- b. Have any articles describing your invention been published? No
If yes, list author (s), title of article, publication and date.
- c. Have any engineering samples been given out? No
If yes, to whom and on what date?
- d. Has any product using the invention been sold or offered for sale? No
If yes, to whom and on what date?
- e. Has any product that has been sold or offered for sale been manufactured or tested using the invention? No

If yes, to whom and on what date?

3.4 DISPOSITION OF THE INVENTION

- a. When will (or did) Micron begin use of the invention experimentally?

I am not aware of any plans to implement this invention internally.

- b. When will (or did) Micron begin production of or use of this invention?

See above.

3.5 MISCELLANEOUS INFORMATION

- a. Was the invention developed during a joint development agreement or other contract with an outside company? No

- b. Please list development work outside of the company (including Government proposal or contract).

None

4. INVENTOR (S):

Name: Eric D. Anderson

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Micron Phone: 612-604-8329

Micron Mail Stop: _____

Dept. Name: Advanced Engineering

Dept. #: 6000

Home Address: 653 4th St. N.

Hudson, WI 54016

Citizenship:

USA

Supervisor:

Dean Klein

Signature:

Eric D. Anderson

Date:

[Redacted]

Note: If you have any questions or wish assistance completing this form, please call the Legal/Patent Department, (208) 893-4790 or 4792.

Rev. 6/29/96 (f:/legal/sarnold/mei/disclose.doc)

PAGE 5

PAGE 1

6/29/96

message is deleted regardless of whether recipients have marked it to be saved, or not.3

email author However, the short entry would not include the contents of the email.

One embodiment of the invention is a method of receiving emails. The steps of the method follow:

An email is received by a server.

The email is parsed and the email recipients that are clients of the server are identified.

A data structure as described above that contains the recipients that are clients of the server is associated with the email.

The copies of the email addressed to the remaining recipients that are clients of the server are received and deleted.

A second embodiment of the invention is a method of reading emails. The steps of the method follow:

A recipient views his or her mailbox contents, comprising the email subject, author, etc. as described above.

The recipient opens the message for viewing. The pointer that is entered in the recipient's mailbox is used to retrieve a copy of the message for display on the recipient's system.

One embodiment may require the user to store the message on his or her own system if they want to save it, another may give the recipient the option of saving the message on the server. In either case, the recipient indicates whether they want the message saved or if the message may be deleted.

The appropriate flags would be set in the status fields in the associated structure on the server indicating the message had been accessed by this recipient, and if it is to be saved or deleted.

A third embodiment of the invention is a method of deleting. The steps of the method follow:

After a recipient has accessed a message, the mail server application checks the status fields for the other recipients of this message.

If any recipient has not yet accessed the message, the mail program ends this thread.

If all recipients have accessed the message, but at least one recipient has indicated the message should be saved, this thread ends.

If all recipients have accessed the message, and all have said that it may be deleted, the mail program proceeds with deleting the message.

Another embodiment of the deleting method could add a timer field to the message header, where on expiration of the timer the message is deleted regardless of whether recipients have marked it to be saved, or not.2